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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,863	06/26/2003	Bong-Hwoan Choi	1293.1758	1435

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EXAMINER

LAMB, CHRISTOPHER RAY

ART UNIT PAPER NUMBER

2627

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,863

Applicant(s)

CHOI, BONG-HWOAN

Examiner

Christopher R. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. (U.S. Patent 5,696,744).

These rejections have been repeated from the previous Office Action for completeness; they are unchanged.

Regarding claim 1:

Okamoto discloses a method of detecting an optical disc (the "fourth method" disclosed as prior art: column 1, lines 55-56), comprising:

detecting a size of the optical disc inserted in an optical disc drive by sensing a weight of the optical disc and driving the optical disc drive (column 1, lines 52-54: the weight determines the activation time noted by Okamoto);

determining the size of the optical disc by detecting an amount of data recorded on the optical disc from a lead-in area of the optical disc (column 1, lines 47-50);

This method described by Okamoto does not include "if the amount of data recorded on the optical disc, the size of which has been determined, is below a reference value, moving a pickup to a periphery area and measuring a

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focus error; and if the measured focus error is above a constant value, detecting the optical disc as a certain optical disc type and limiting the operational speed level of the optical disc drive.”

Okamoto discloses that this method fails when a short program is recorded on a long disc (column 1, line 65 to column 2, line 11).

Okamoto discloses moving a pickup to a periphery area and measuring a focus error, and if the measured focus error is above a constant value, detecting the optical disc as a certain optical disc type (column 3, lines 54-61; Okamoto’s “whether focus control is performed or not” is equivalent to comparing the measured focus error to a constant value) and limiting the operational speed level of the optical disk drive (column 1, lines 29-37, where adjusting the gain is comparable to limiting the operational speed level).

It would have been obvious to one of ordinary skill in the art at the time of the invention to take the prior art methods disclosed by Okamoto and modify them as taught by Okamoto to include if the amount of data recorded on the optical disc is below a reference value, moving a pickup to a periphery area and measuring a focus error, and if the measured focus error is above a constant value, detecting the optical disc as a certain optical disc type and limiting the operational speed level of the optical disc drive.

The motivation would have been to improve the reliability of the method (Okamoto discloses that the method fails when a short program is recorded on a long disc; thus, when a short recording time is detected, it would have been obvious to add a backup method such as the one proposed by Okamoto).

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Regarding claim 2:

Okamoto discloses wherein the optical disc detecting according to the weight thereof is either a standard disc having a diameter of 12 cm or a fashion disc having a diameter of 9 cm (column 1, lines 16-17).

Regarding claim 3:

Okamoto discloses wherein the optical disc determined according to the amount of data recorded on the optical disc is any one disc among a standard disc having a diameter of 12 cm on which data is fully recorded, a standard disc having a diameter of 12 cm on which data is partially recorded, and a fashion disc having a diameter of 8 cm (that it can be 12 cm or 8 cm is disclosed in column 1, lines 16-17; that it might be a larger disc in which data is partially recorded is disclosed in column 1, lines 64-66).

Regarding claim 4:

In Okamoto the certain optical disc type is a fashion disc having a diameter of 8 cm (column 3, lines 54-62).

Regarding claim 5:

In Okamoto if the measured focus error is below the constant value, the optical disc is detected as a standard disc having a diameter of 12 cm (column 3, lines 54-62) on which data is partially recorded (since the modified method of Okamoto first checks the length of recorded data, it can distinguish between a partially recorded and fully recorded 12 cm disc).

Regarding claims 6-10:

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These are apparatus claims corresponding to the method of claims 1-5, and are thus rejected for the same reasons.

Regarding claims 18:

If the disc measured by the method of Okamoto is full, the amount of data recorded on the optical disc is equal to the data recording capacity of the optical disk. Thus these claims are rejected for the same reason as the previous claims. Note also that Okamoto discloses changing the speed level of a disc based on the size (column 1, line 29-37).

Response to Arguments

3. Applicant's arguments filed July 28th, 2006 have been fully considered but they are not persuasive.

Regarding claim 1-5:

As best the Examiner can determine, the Applicant appears to be making two separate arguments:

(A) that Okamoto does not disclose the limitation "if a detected amount of data recorded on the optical disc is below a reference value, moving a pickup to a periphery area and measuring a focus error; and if the measured focus error is above a constant value, detecting the optical disc as a certain optical disc type and limiting the operation speed level of the optical disc drive" (remarks: pages 5-6).

(B) that the claims recite a method of detecting "fashion discs" that are different than the 8cm or 12cm discs disclosed by Okamoto, and that Okamoto's method is incapable of identifying these fashions discs (remarks: page 6).

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Regarding argument (A):

The Examiner has relied upon a 103 obviousness rejection to meet these claimed limitations. Each limitation has been specifically identified in the rejection above.

In particular, Applicant's argument appears to rest on the contention that Okamoto relies upon a discrimination signal to identify the type of disc, not a focus error signal. However, as noted in the previous Office Action, Okamoto's discrimination signal is the result of comparing the focus error to a predetermined value (Okamoto: column 5, lines 25-60). Thus Okamoto compares a measured focus error to a constant value, as recited in the claim.

Regarding argument (B):

First, this argument is not relevant to claims 1 or 5, because detecting a "fashion disc" is not one of the claimed elements.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a "fashion disc") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

That one of the discs is a "fashion disc" is recited in claims 2-4. However, Okamoto does disclose a disc having a diameter of 8 cm (column 1, lines 16-17, among other places). The Examiner considers this to be a "fashion disc," because the Applicant has defined fashion discs as discs "having diameters of 8

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cm and various shapes” (specification: paragraph 5). Even if Okamoto’s disc is circular, it still meets this definition.

Thus Okamoto recites a method of detecting a “fashion disc” containing every element of the claims as noted above.

Regarding claims 6-10:

Applicant’s arguments here (remarks: page 7) are similar to the arguments made with respect to claims 1-5, and are not persuasive for the same reasons.

Regarding claim 18:

Applicant merely refers to the arguments made with respect to claim 1 (remarks: page 8): these arguments are no more persuasive applied to claim 18 than they were to claim 1.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

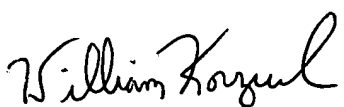
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (572) 272-5264. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 10/16/06


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